

ISO IMPLEMENTATION EFFECTIVENESS: SUPPLIERS PROSPECTIVE

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ABSTRACT

It has been five years since UM implemented ISO Quality Management System for all its process. However to date no systematic evaluation is done to quantify the effectiveness of the implementation for many processes. Purchasing supplies are one of the point emphasized in ISO 9001:2000 Quality Management System and it is covered under clause 7.4. In this paper the authors evaluate the effectiveness of implementing ISO clauses for purchasing equipments, chemicals, consumables and services. For this purpose eleven willing suppliers in Chemical Engineering Department was selected and given various questions with the intention of evaluating the effectiveness. Criteria such as tender information announcement, payment duration, simplicity of documentation, transparency and fairness are used to evaluate the effectiveness of the purchasing process. The suppliers were also asked to compare these criteria prior to ISO implementation in UM. Comparison is also made with Universities without ISO. From the feedback received it is very evident that from the suppliers perspective, the purchasing system has improved about 10-20% after the implementation of ISO system but there are plenty of room left for improvements. The results also show that the levels of satisfaction of the suppliers with non-ISO universities are about 5% less than UM.

Keywords: ISO 9001:2000, Suppliers, Effectiveness, Quality Management System

1. INTRODUCTION

Procurements do have great effect on the services or products that an organization is providing or producing. In Institution of Higher Learning (IHL), where teaching and learning and research services are provided, the purchasing process, either for consumables, equipments or services, really need careful control and monitoring to ensure that the education services provided later is of high quality. The purchasing could be in the form of services like part-time lecturers, maintenance services for equipment, or it could also be in the form of acquiring of new equipment, consumables, repairing of malfunction equipment etc.

Failure in control and monitoring of the purchasing processes could bring substantial negative effect on the educational services provided, depending on the item that is in question. For example, acquiring the service of part-time lecturer without proper scrutiny in the initial stage and continuous monitoring while services are provided

could greatly affect the process of students absorbing the materials delivered. Besides services, equipments acquired not according to specifications will also have detrimental effect like delaying research progress and experimental work, analytical work has to be carried out outside, classes cannot be held and many others.

The purpose of the control is to meet the requirement of the stakeholders and government policies, besides also serving as a mean to fulfill the ISO requirements as UM is an ISO certified organization. The formulation of ISO document in UM has taken into account all the above-mentioned elements plus the legal requirements. Fulfilling all these requirements will indirectly leading to undisturbed core business venture. This paper tries to look at the effect of the ISO implementation, not only from our own perspective, but also from the perspective of our suppliers.

Of course the question here is why UM chooses ISO? ISO is a series of international guidelines and standards designed to be used for the evaluation and certification of organizations that have implemented a quality system. Specific features in the ISO 9001:2000 make it the most suitable choice to adopt as a basis for quality management. The QMS provides firstly, a systematic procedure for the whole organization to follow; and secondly, a rigorous process of first and third party auditing⁴.

Other features which the ISO provides are the requirement for the organization to be client focused, to achieve self-determined quality objectives, to provide service with proper planning, and subsequently to measure and monitor this provision of service. Communication is also a main feature in the ISO 9001:2000 as reflected in the clauses on internal communication and customer communication. In the QMS of UM, feedback exists in the form of audit results, suggestions or complaints made through suggestion boxes strategically placed all over campus and discussion during Management Review Meetings. All these form the basis for the management to introduce continuous improvement and to set and revise the objectives. The top management of the university acknowledges the importance of internal control and stringent third party auditing to ascertain quality⁴.

2. METHODOLOGY

2.1 Sample of companies chosen

A total of eleven companies that have supplied materials and services participated in the survey. Few categories were chosen to select the companies. Most of the companies chosen not only supply to the Chemical Engineering Department, but also supply to the University as a whole. The questions used during the interview is attached in Appendix A. The criteria used for selecting the companies are;

(a) Size of the company

The companies was divided into four categories as follows:

- *Small size*: enterprise companies, and Sdn. Bhd with paid up less than RM 10,000
- *Medium size*: Sdn. Bhd with paid-up more than RM 10,000 and less than RM 100,000
- *Big companies*: Sdn. Bhd and Bhd. companies with paid up more than RM 100,000.

(b) Average transaction per year

Number of transaction typically done in a year (from 1st January to 31st December).
On average most of the companies chosen have done or doing 6 transactions per year.

(c) Years of supply

Number of years the company has been supplying the University

(d) Supplying other universities

Most of the suppliers chosen are also supplying other non-ISO universities and other higher learning institutes.

(e) Supply type

The types of businesses done by the companies were divided into four categories as follows:

- Type 1: Below RM 1,000
- Type 2: Below RM 10,000 (quotation)
- Type 3: Below RM 100,000 (close or invited tender)
- Type 4: Above RM 100,000 (open tender)

2.2 Evaluation Criteria

The following evaluation criteria were used:

(a) Business Opportunity level

It is the opportunity that the company gets by being involved in quotation, closed and open tender participation in the Department and its chances of winning it.

(b) Process transparency

It is the feeling that the company has towards getting the information required (specification, preferred product, etc) when compared to other suppliers.

(c) Process time required

Duration from which the quotation or tender are submitted until Purchase order is obtained.

(d) Efficiency of the process

The perception of the supplier towards the completeness of the information asked, forms filled and assistance from the office staffs handling the acquisition process. It also includes the easiness to get clarification from the staff when needed.

(e) Communication level

This criterion includes all kind communication especially on the availability of opportunity, clarity of the specification, displayed duration and location of the tender notice board and invitation through e-mail and postal mail. This is also covered in the ISO clause 7.4.2.

(f) Fairness in opportunity available

It is the perception of the suppliers who have submitted offers in winning is based on fair evaluation process.

(g) Payment period

The satisfaction level of the suppliers in getting their payment within agreed upon period after the delivery and commissioning.

(h) Ease of documentation

The perception of the suppliers towards number or complexity of the documentation required to supply material and services in the Department.

(i) Level of smoothness

This criteria is asked specifically to state the rigidity symptom which are common in government sectors. Example : Extension of submission deadline, widening the scope and redefining the specification.

(j) Overall experience of doing business

It is the overall satisfaction level of the supplier towards the procurement process in the Department.

2.3 Comparison criteria

(a) Prior to ISO

The period refers to procurement done before year 2002, where ISO was not implemented and the procurement system was solely based on directive from Treasury Department and University Guidelines.

(b) Current Time

Current time refers to procurement done according to the quality procedures outlined in Quality Management system established and updated since 2002.

(c) Comparison with other Universities

This criterion refers to the perception of the suppliers who are also dealing with other institution of higher learning currently. The suppliers are asked to compared current satisfaction level in the Department to that of other universities.

3 RESULTS AND DISCUSSION

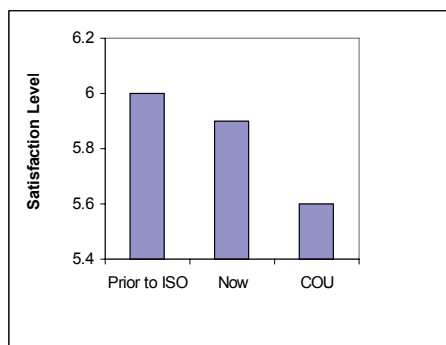


Figure 1: Business Opportunity

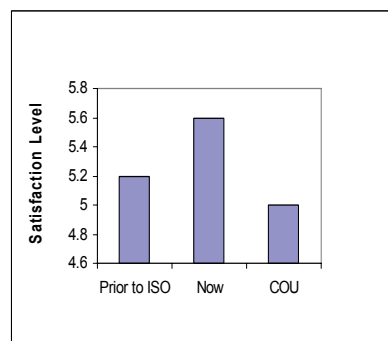


Figure 2: Transparency

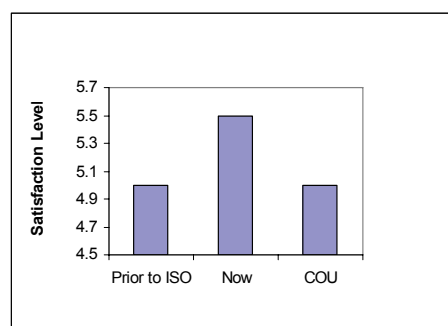


Figure 3: Processing Time

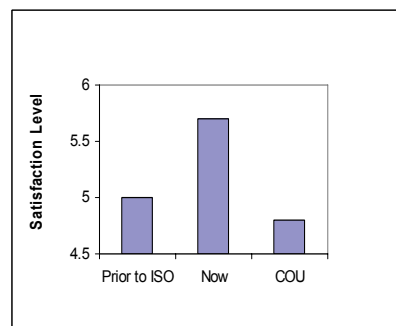


Figure 4: Process Efficiency

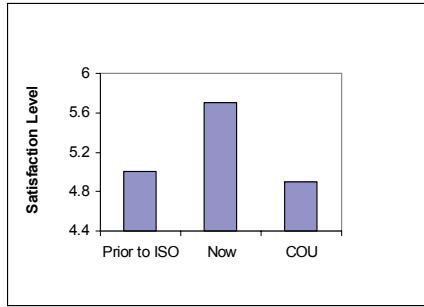


Figure 5: Communication Level

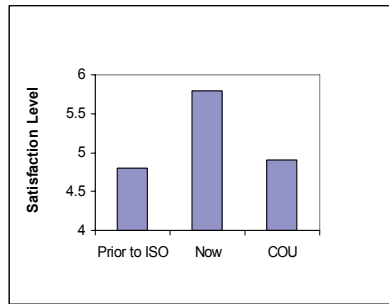


Figure 6: Fairness

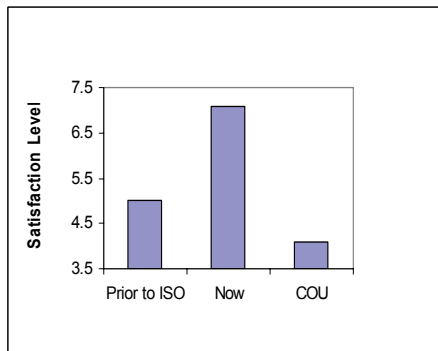


Figure 7: Payment Period

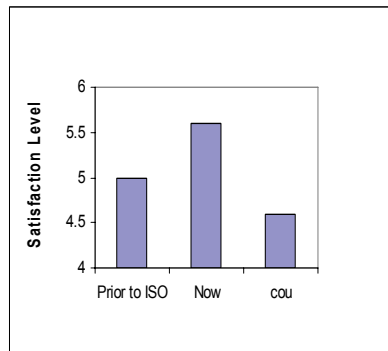


Figure 8: Ease of Documentation

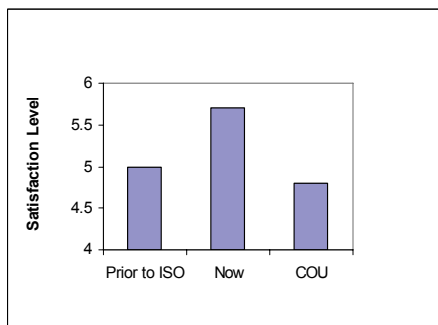


Figure 9: Process Smoothness

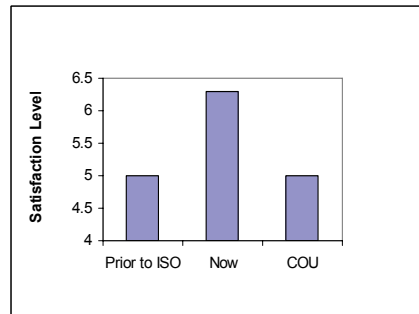


Figure 10: Overall Satisfaction

It is obvious from Figure 1 that business opportunity is one of the areas that has dropped slightly after the implementation of ISO in UM. This could be due to the fact that the strict adherence to quality procedure that has resulted in a more open system where more companies have the opportunity to enter into the bidding process. However, in comparison with other universities, the suppliers still perceive UM provides better business opportunity. The ISO clauses did not mention anything regarding this matter; however the organization shall exert control on the supplier and the purchased product so that they will not have negative effect on the subsequent product realization or final product.¹

Besides business opportunity, the implementation of ISO which demands compliance to quality procedures and ISO standards has brought about improvement in all the other areas as perceived by the suppliers. Ten to twenty percentage improvement can be seen in the areas of transparency, processing time, process efficiency,

communication level, fairness, payment period, ease of documentation and process smoothness. As of the overall satisfaction among suppliers, the same 20% improvement is obtained. This trend can be seen in Figures 2 to 10.

For a big organization such as UM, it is not easy to implement and enforce the same set of rules uniformly throughout the campus. However, it must be emphasized that ISO does not require a written procedure for this procurement process to be established. However, without proper quality procedures, each unit, be it big like a faculty or small like department or section will interpret government directives differently. Therefore, it is not surprising to see that the perception of suppliers on the eight areas; transparency, processing time, process efficiency, communication level, fairness, payment period, ease of documentation and process smoothness have improved. However, the general trend in satisfaction is still at the threshold of 5.5 to 6.5. This means that UM can improve in these aspects to bring better execution and control of the procurement process.

Perhaps a glance at the complaints from the suppliers could shade some lights on what need to be done. In the course of interviewing the suppliers this few comments were noted down:

- i. Specifications put up in tenders were not complete; staffs are not trained in specifications preparation. Sometime this resulted in a new tender is put-up after the closing date as most suppliers could not meet the requirement of the procurement. This is contrary to clause 7.4.2 in which UM is required to ensure adequacy of purchase requirement prior to communication to the supplier. This is also the requirement stated in 7.4.2 where the description of the product to be purchased shall be appropriate. Other dissatisfaction include those like cancellation of PO which may cause monetary loss on the supplier side.
- ii. Some discrepancies, if not detected in the audit process, will just go unnoticed and no corrective actions or improvement taken.
- iii. Some tender notices are just too short even though it complies with the directive from the bursar office. For example, an open tender can be put-up for a period of 7 working days. Most suppliers complain that they could easily miss those notices if they were ones handling installation in other places.
- iv. Payment could be delayed due to staff not knowing the quality procedure. There were cases where staffs keep the invoices and do not send them to the bursar office for payment. It seems that staffs who do not deal much with procurement tend to commit this kind of mistake. Therefore staff training is essential to make sure the smooth implementation of the whole quality management system.

As a whole (from Figure 1 to 10), UM is always perceived as better in comparison with other non-ISO universities. This is a clear indication that ISO did bring improvement and more organized implementation of policy in an organization.

The other important element in the purchasing clause of ISO is the verification of purchase product. This is indeed an important element of control, where purchased product or services are first verified before being utilized that could greatly affect the quality of UM's products. Indirectly, this element also helps our suppliers to improve their products and services to meet our stringent quality requirements. UM's quality manual and procedures also spell out the process of selection, evaluation and re-evaluation and maintenance of record as a result of these processes. With this, the

ability of the suppliers to supply in accordance with UM's requirements can be readily established.

4 CONCLUSIONS

- i. Overall the ISO implementation has brought an improvement in the procurement process
- ii. Generally the procurement process in UM is at a better satisfaction level compared to other non-ISO universities
- iii. However, the satisfaction level hovers around 6/10, which strongly indicate rooms for improvement.
- iv. Improving the implementation of the procurement process through staff training, smoother communication and vendor awareness program will be necessary to have significant improvement in satisfaction level among suppliers.

5 NOMENCLATURE

PO	Purchase Order
COU	Compared to other universities
QMS	Quality Management System

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Quality Manual for the University of Malaya

APPENDIX A

Survey on the Effectiveness of ISO Implementation on Procurement Process

Name of the company : _____

Date _____

Company Name										
Company size ¹		Small		Medium		Big				
Average transactions per year ²										
Years of supply ³										
Supply to other Universities ⁴		Yes				No				
Supply Type ⁵		Type 1		Type 2		Type 3		Type 4		
Evaluation Criteria⁺				After ISO⁷		Prior to ISO⁸		Comparison⁹		
Business Opportunity level										
Process transparency										
Process time required										
Efficiency of the process										
Communication level										
Fairness in opportunity available										
Payment period										
Ease of documentation										
Level of smoothness										
Overall experience of doing business										
Other Comments										

- 1 Size of the companies. The following codes are used.
 - *Small size*: enterprise companies, and Sdn. Bhd with paid up less than RM 10,000
 - *Medium size*: Sdn. Bhd with paid-up more than RM 10,000 and less than RM 100,000
 - *Big companies*: Sdn. Bhd and Bhd. companies with paid up more than RM 100,000.
- 2 Number of transaction typically done in a year (from 1st January to 31st December)
- 3 Number of years the company has been supplying the University
- 4 Does the company supply materials or services to other non-ISO public universities?
- 5 Type of business the company take part
 - Type 1: Below RM 1,000
 - Type 2: Below RM 10,000 (quotation)
 - Type 3: Below RM 100,000 (close or invited tender)
 - Type 4: Above RM 100,000 (open tender)
- 6 Indicate with numbers. 1: Extremely bad, 5: Average, 10: Extremely good or 1: Extremely low, 5: Average, 10: Extremely high
- 7 The level after the implementation of the ISO
- 8 The level prior to ISO implementation
- 9 The level at other Universities currently if the company also a supplier to them